

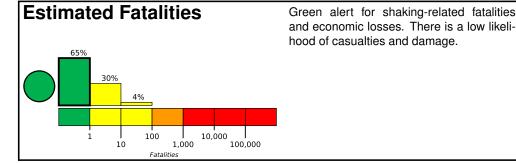


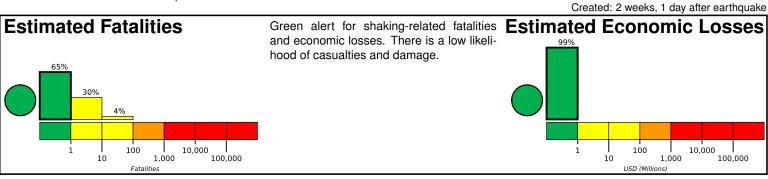
PAGER

Version 4

M 5.5, 49 km WNW of Minas de Marcona, Peru

Origin Time: 2021-01-20 22:59:12 UTC (Wed 17:59:12 local) Location: 15.0155° S 75.5223° W Depth: 7.9 km





Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | | _* | 1,177k | 85k | 0 | 2k | 0 | 0 | 0 | 0 |
|--|--------------------------|----------|--------|-------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | 11-111 | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| DAMAGE | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

^{*}Estimated exposure only includes population within the map area.

Population Exposure

14.8°S

15.9°S

population per 1 sq. km from Landscan **Structures**

Puquio

Atiquipa

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are mud wall and reinforced/confined masonry construction.

74.1° W 13.6°S

Minas de Marcona

Historical Earthquakes

| Date | | Dist. Mag. | | Max | Shaking | |
|------|------------|------------|-----|------------|---------|--|
| | (UTC) | (km) | | MMI(#) | Deaths | |
| | 2001-12-04 | 333 | 5.8 | VI(32k) | 2 | |
| | 1981-04-18 | 244 | 5.5 | VI(193k) | 8 | |
| | 2007-08-15 | 216 | 8.0 | VIII(493k) | 514 | |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

| from GeoNames.org | | | | | | |
|-------------------|---------------------|------------|--|--|--|--|
| MMI | City | Population | | | | |
| IV | Changuillo | <1k | | | | |
| IV | Llipata | <1k | | | | |
| IV | Minas de Marcona | 15k | | | | |
| IV | San Juan de Marcona | <1k | | | | |
| IV | Palpa | 6k | | | | |
| IV | Rio Grande | 5k | | | | |
| IV | Nazca | 24k | | | | |
| Ш | Ica | 247k | | | | |
| Ш | Pisco | 62k | | | | |
| Ш | San Clemente | 16k | | | | |
| Ш | Chincha Alta | 153k | | | | |

bold cities appear on map.

(k = x1000)

| U | J | 30 | 100 | 300 | 1000 | |
|---|-----|--------|------------|---------|------|---------|
| | 7.0 | 1 21/1 | 138.77 P | 70 2014 | | |
| | 76 | .4 V | | -/5.2 W | | Therese |
| | | Chi | ncha Alta | | | |
| | | Citi | Helia Alta | | | |
| | | 35-47 | | 415.8 3 | | |

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty. https://earthquake.usgs.gov/earthquakes/eventpage/us7000d1ut#pager